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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/585,354	07/06/2006	Osmo Pikkala	1034456-000039	2540
21839 7590 08/17/2009 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404				
EXAMINER				
FISHMAN, MARINA				
ART UNIT		PAPER NUMBER		
2833				
NOTIFICATION DATE		DELIVERY MODE		
08/17/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

### Office Action Summary

**Application No.**

10/585,354

**Applicant(s)**

PIKKALA ET AL.

**Examiner**

Marina Fishman

**Art Unit**

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***General status***

1. This is a Non-Action on the Merits for RCE. Claims 1 - 11 are pending in the case and are being examined.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/09/2009 has been entered.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morel et al. [US 5,357,066] in view of Morel et al. [US 5,281,776] and Leone et al. [US 5,448,033].

Regarding Claims 1 and 9, Morel et al. disclose a switching device configured to open and close a current circuit, the switching device comprising:

- a switching device comprising a frame [7a];
- a second connector [7b];

- the first connector and the second connector extending from an interior of the frame to an exterior of the frame, the portion of the first connector remaining inside the frame is configured to conduct an electric current in a closed state of the switching device;
- means [3] for connecting the first and the second connector electrically to one another.

Regarding Claim 1, Morel [5,375,066] disclose the instant claimed invention except for one or more gas flow openings have not been identified in the frame between the interior and the exterior of the frame and arranged for a gas flow produced by a switching event and a portion of the first connector remaining inside the frame comprise a hole. Morel [5,281,776] disclose a large opening [24] in the frame [17] which is connected to a small opening [44] connecting to the exterior and arranged for a gas flow produced by a switching event and a portion of the first connector remaining inside the frame comprise a hole. Leone et al. disclose a first connector [40] remaining inside the frame comprises a hole [44, 64; Figures 2, 6]. It would have been obvious to one of ordinary skill in the art at the time the invention is made to provide a hole in the frame and connect to the exterior as suggested by Morel '776 to effectively vent the hot gases and also provide a hole in the first connector of Morel et al., as suggested by Leone et al., in order to split the current [Leon et al., column 4, lines 32 - 34]. It is noted that, though the holes in the connector of Leon et al. are not intended for allowing the gas flow, they are capable of allowing the gas flow.

5. Claims 1 - 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemmer et al. [US 4,401,863] in view of Leone et al. [US 5,448,033].

Regarding Claims 1 and 9, Lemmer et al. disclose a switching device configured to open and close a current circuit, the switching device comprising:

- a switching device comprising a frame [1,2];
- a first connector [3];
- a second connector [4];
- the first connector and the second connector extending from interior of the frame to an exterior of the frame, the portion of the first connector remaining inside the frame is configured to conduct load current in a conducting state of the switching device;
- means [7, 18] for connecting the first and the second connector electrically to one another.

Lemmer et al. disclose a hole (or cavity) in the frame, where arc quenching plates [21] are located as well as a gap between the means for connecting [7, 18] and the plates [Figure 6] on either side of means for connecting the contacts, which would form openings for escape of the gases. Lemmer et al. disclose all the claimed elements except for the first connector comprise a hole. Leone et al. disclose a first connector [40] remaining inside the frame comprises a hole [44, 64; Figures 2, 6]. It would have been obvious to one of ordinary skill in the art at the time the invention is made to provide a hole in the first connector of Lemmer et al., as suggested by Leone et al., in order to

split the current [Leon et al., column 4, lines 32 - 34]. It is noted that, though the holes in the connector of Leon et al. are not intended for allowing the gas flow, they are capable of allowing the gas flow. Regarding Claim 2, the frame includes an upper part and a lower part, the lower part being arranged to reside in the vicinity of frame structures of a mounting space, such as a switchgear cubicle, and that wherein each of said gas flow openings provided in the frame resides farther from the lower part of the switching device than the first connector and the second connector. Regarding Claims 3 and 6, Lemmer et al. disclose the first connector and the second connector are identical with one another. Regarding Claims 4, 5, 7 and 8, Lemmer et al. disclose the claimed invention except for specific dimensions of the gas flow openings. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide proper size of gas opening in a proper orientation, since it has been held that change in size or shape, only requires routine skill in the art. [In Re Rose 220 F2d 1048, 189 USPQ 143 (CCPA 1976) and In Re Dailey 357 F2d 669, 149 USPQ 47 (CCPA 1966). The motivation for providing the gas opening is to properly exhaust the gases away from the contacts. Regarding Claim 11 and 12, the combined device of Lemmer and Leone would have a hole or cavity described above, the part of the frame which will be aligned with the hole in the first connector and would also allow gas to flow through.

***Response to Arguments***

6. Applicant's arguments filed 6/9/2009 have been fully considered but they are not persuasive.

The Applicant has argued that Morel does not include any gas flow openings provided in the frame, and arranged for a gas flow produced by the switching event, and Lemmer does not include any discussion of gas flow produced by switching event. Although the references of Morel and Lemmer do not identify the gas glow opening to the exterior, the opening of the contacts create hot gases which creates a turbulent gas flow inside the switchgear, and by nature the gas will flow in every possible direction of least resistance. The hole in the first connector would be an area, where gas flow would encounter less resistance and hence, by operation of natural principle, the gas will flow through the hole in the first conductor.

### ***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Fishman whose telephone number is (571)272-1991. The examiner can normally be reached on 5:30 - 4:00 M-T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee S. Luebke can be reached on 571-272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marina Fishman/  
Examiner, Art Unit 2833  
August 6, 2009

/Michael A. Friedhofer/  
Primary Examiner, Art Unit 2833